BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Imran Shah	Head, Computational Systems Biology
eRA COMMONS USER NAME	

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
Imperial College of Science, Technology Medicine, London, UK,	B.Sc.	1989	Physics
George Mason University, Fairfax, Virginia, USA	M.S.	1993	Applied And Engineering Physics
George Mason University, Fairfax, Virginia, USA	Ph.D.	1999	Computational Biology

A. POSITIONS and HONORS

Research and Professional Experience:

2006-present Computational Systems Biologist, National Center for Computational Toxicology, Office of Research and Development, US Environmental Protection Agency, Research Triangle Park, North Carolina.

2004-2006 Head of Computational Systems Biology, Icoria, Research Triangle Park, North Carolina.

2000-2004 Assistant Professor of Bioinformatics, Department of Preventive Medicine and Biometrics, and Department of Pharmacology, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado.

2001-2004 Adjunct Assistant Professor of Computer Science and Engineering, University of Colorado, Denver, Colorado.

1999-2001 Adjunct Assistant Professor of Computational Sciences & Informatics, School of Computational Sciences, George Mason University, Fairfax, Virginia.

1998-2000 Bioinformatics Research Scientist, American Type Culture Collection (ATCC), Manassas, Virginia.

1996-1997 Graduate Fellow, School of Computational Sciences George Mason University, Fairfax, Virginia.

1995-1996 Bioinformatics Software Developer, The Institute for Genomic Research (TIGR), Rockville, Maryland.

1993-1994 Software developer, Vision Lab, Department of Computer Science, George Mason University, Fairfax, Virginia.

1991-1994 Graduate Research Assistant, School of Computational Sciences George Mason University, Fairfax, Virginia.

Research Support:

Principal investigator on “Modeling Metabolic Pathways: A Bioinformatics Approach.” Funded by the National Science Foundation, Department of Energy and Office of Naval Research, from September 1, 2000 to March 22, 2004.

Co-Principal investigator on “Integrated Neuroinformatics Resource for Alcoholism Research.” Funded by the National Institute for Alcohol Abuse and Alcoholism, from August 1, 2001 to March 22, 2004.

Investigator on “Gene Array Technology Center for Alcohol Research.” Funded by the National Institute for Alcohol Abuse and Alcoholism, from April 1, 2001 to March 22, 2004.

Co-Principal investigator on “Application of expression analysis to study disease pathogenesis.” Funded by the National Heart, Lung and Blood Institute, from October 2002 to March 22, 2004.

Principal investigator on “Target Assessment Technology Suite.” Funded by the National Institute of Standards, Advanced Technology Program, from 2002-2006.

Professional Societies and Affiliations:

2001-2004 Director of the Doctoral Program in Bioinformatics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado.

2001-2004 Director of Integrated Informatics, Department of Pharmacology, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado.

Honors and Awards:

1996-1997 Predoctoral Fellowship, School of Computational Sciences, George Mason University, Fairfax, Virginia.

1992 NASA Summer Fellowship for High Performance Computing, NASA Goddard Space Flight Center, Greenbelt, Maryland.

B. SELECTED PUBLICATIONS.

Lapadat, R., DeBiasi, R.L., Tyler, K.L., Johnson, G.L, and Shah, I. Genes induced by reovirus have a distinct modular *cis*-regulatory architecture. *Current Genomics,* 6(7):501-513, 2005.

McShan, D., Upadhyaya, M. and Shah, I. Symbolic inference of xenobiotic metabolism. *Pac. Symp. Biocomp.* 9:545-56,2004.

McShan, D., Upadhyaya, M. and Shah, I. Heuristic Search for Metabolic Engineering: *de novo* synthesis of vanillin. *Comp. and Chem. Engg., Bioinformatics special issue* (in press). 2004.

Hink, R.L., Hokanson, J.E., Shah, I., Long, J.C., Goldman, D. Sikela, J.M. Investigation of DUSP8 and CALCA in alcohol dependence. *Addiction Biology.* 8(3):305-312, 2003.

McShan, D., Rao, S. and Shah, I. PathMiner: Predicting metabolic pathways by heuristic search. *Bioinformatics.* 19(13):1692-1698, 2003.

McShan, D., and Shah, I. Distributed Intelligent Agents in Lisp for Bioinformatics (DIAL-B). *Agents in Bioinformatics, Autonomous and Multiagent Systems,* 56-59, 2002.

Shah, I. and Hunter, L. Visual management of large scale data mining projects. *Pac. Symp. Biocomp.* 5:275-287, 2000.

Shah, I. and Hunter, L. Visualization based on the Enzyme Commission nomenclature. *Pac. Symp. on Biocomp.* 3:142-152, 1998.

Shah, I. and Hunter, L. Identification of Divergent Functions in Homologous Proteins by Induction over Conserved Modules. *Intell. Syst. Mol. Biol.* 6:157-164, 1998.

Shah, I. and Hunter, L. Predicting Enzyme Function from Sequence: A Systematic Appraisal. *Intell. Syst. Mol. Biol.* 5:276-283, 1997.